complete count of events rather than a sample, there is still random error with small numbers.[4] A few events added or deleted could result in important rate changes, not necessarily indicative of a real change in the situation. With 20 events in the numerator, a rate or percentage will have a margin of error of approximately plus or minus 45 percent of the rate or percentage. For example, with 20 deaths from suicide out of a population of 150,000, the suicide death rate would be 13.3 per 100,000 population. The 95 percent confidence interval for this rate would be 13.3 plus or minus 5.8. Stated another way, we are 95 percent sure that the true suicide death rate for this population is between 7.5 and 19.1.

We have used two additional databases for this study, but due to the low numbers of American Indian, Asian, and Hispanic/Latino respondents, data is shown only for Whites and African Americans. The Behavioral Risk Factor Surveillance System (BRFSS) is a random telephone survey of approximately 3,000 North Carolina adults each year. The BRFSS asks questions about behaviors and health issues that affect the major causes of illness and death. The Pregnancy Risk Assessment Monitoring System (PRAMS) is a statewide random mail and telephone survey of approximately 1,800 women each year who have recently given birth. Questions are asked about maternal and infant health risks. For the BRFSS, the numbers of respondents for the three-year period 1997-1999 was only 201 for Hispanics/Latinos, 101 for American Indians, and 65 for Asians. For PRAMS, the number of respondents from July 1997 through December 1998 (the data currently available) was 111 for Hispanics/Latinos, 56 for American Indians, and 38 for Asians.

In comparing the death rates and cancer incidence rates among racial and ethnic groups, it is very important to adjust for age.[5] Chronic diseases occur with much higher frequency in the older age groups, and the age distribution of a population will have a strong influence on these rates. For example, the African American population in North Carolina has proportionately more persons in the younger age groups than the White population. As a result, the unadjusted death rate for African Americans (for total deaths) is approximately equal to that for Whites, despite the fact that the death rates are higher for African Americans in each age category. After adjustment for age, the African American death rate is 35 percent higher than that for Whites. The Hispanic/Latino population in North Carolina is especially young, and so it is important to age-adjust rates before making comparisons. In this report, the projected 2000 United States population is used as the standard for age adjustment, in keeping with the conventions of the National Center for Health Statistics. The age-adjusted rates show what the rates **would be** if the racial or ethnic group had the same age distribution (in percentage terms) as that for the United States in 2000, without changing the age-specific death rates for that population.

In North Carolina each infant death certificate is matched to the live birth certificate for that baby. The rate of successful matches is more than 99 percent. This linked birth/infant death file permits analysis of infant mortality by items present on the birth certificate, such as mother's age, mother's education, or maternal smoking during pregnancy (information not on the death certificate). Race and ethnicity are captured independently on both the birth and infant death records. For Whites and African Americans, the agreement between the race codes is good (less than 5 percent discrepancy), but for other racial and ethnic groups the agreement is poor. During 1996-98 for example, among the 66 infant deaths where the mother's race was recorded as American Indian on the birth certificate, 15 (or 23 percent) had a different race recorded on the matching infant death certificate (usually White). Mother's race on the birth certificate is likely to be more accurate since it is usually reported by the mother at the time of delivery. Race on the death certificate is reported by a funeral director based on information supplied by a family member or other informant, or in the absence of an informant, based on observation. Using the linked birth/infant death file for infant mortality analyses, we have assigned mother's race from the birth certificate to both the births (denominator) and infant deaths (numerator), thus reducing the problem of misclassification of race and ethnicity on the infant death certificates.

There is serious concern about the accuracy of the recording of Hispanic/Latino ethnicity on the death and cancer incidence records. For example, the age-adjusted death rate (all causes) for the Hispanic/Latino population in 1998 was only one-fourth the age-adjusted death rate for the total North Carolina population. This suggests potentially serious under-reporting of Hispanic/Latino deaths. One factor may be that as Hispanic/Latino persons in North Carolina become seriously ill, particularly if they are of Mexican origin,